Abstract

The invention relates to a design for constructing an input circuit to receive and process an electrical signal, such as a voltage signal from a voltage source, specifically from a sensor, such as an electrochemical, inductive or optical sensor, where the input circuit has an extremely high resistance of at least 10^{11} ohms and is located on a printed circuit board (4), where a first area (2) of the printed circuit board (4) carrying components (6, 8) of the input circuit is separated from a second area (12) surrounding or contiguous to it by a channel-shaped recess (10); to preserve the high resistance of the circuit even under operating conditions and at high relative humidity, the circuit under the invention is configured in such a way that the channel-shaped recess (10) terminates in the interior of the printed circuit board (4) and is extended in the direction of the thickness of the printed circuit board (4) immediately up to a moisture-impermeable barrier layer (20) which underlies) the first area (2) of the printed circuit board and such that the channel-shaped recess (1) and the first area (2) are filled and surrounded by a cohesive moisture-impermeable material (24).

(Figure 2)